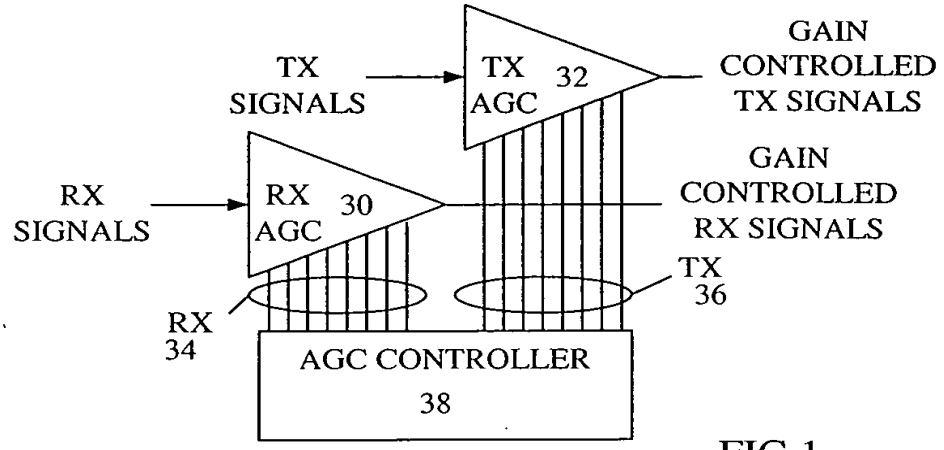
TX
SIGNALS
TX
AGC
32
GAIN
CONTROLLED
TX SIGNALS
RX
SIGNALS
RX
AGC
30
GAIN
CONTROLLED
RX SIGNALS
TX
36
RX
34
AGC CONTROLLER
38

FIG.1

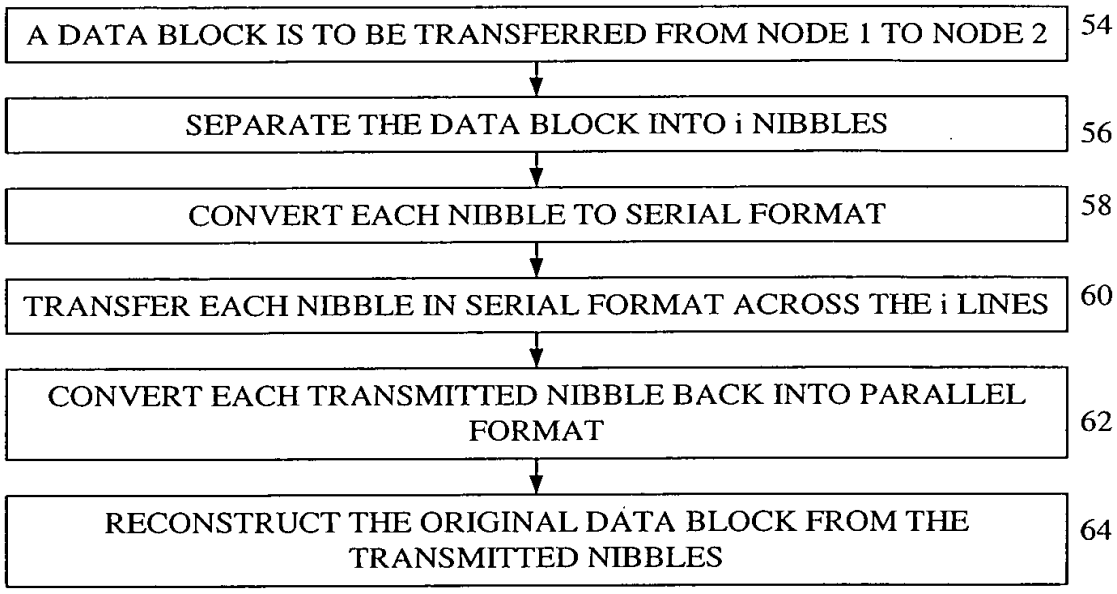
A DATA BLOCK IS TO BE TRANSFERRED FROM NODE 1 TO NODE 2
54
SEPARATE THE DATA BLOCK INTO i NIBBLES
56
CONVERT EACH NIBBLE TO SERIAL FORMAT
58
TRANSFER EACH NIBBLE IN SERIAL FORMAT ACROSS THE i LINES
60
CONVERT EACH TRANSMITTED NIBBLE BACK INTO PARALLEL FORMAT
62
RECONSTRUCT THE ORIGINAL DATA BLOCK FROM THE TRANSMITTED NIBBLES
64

FIG.3

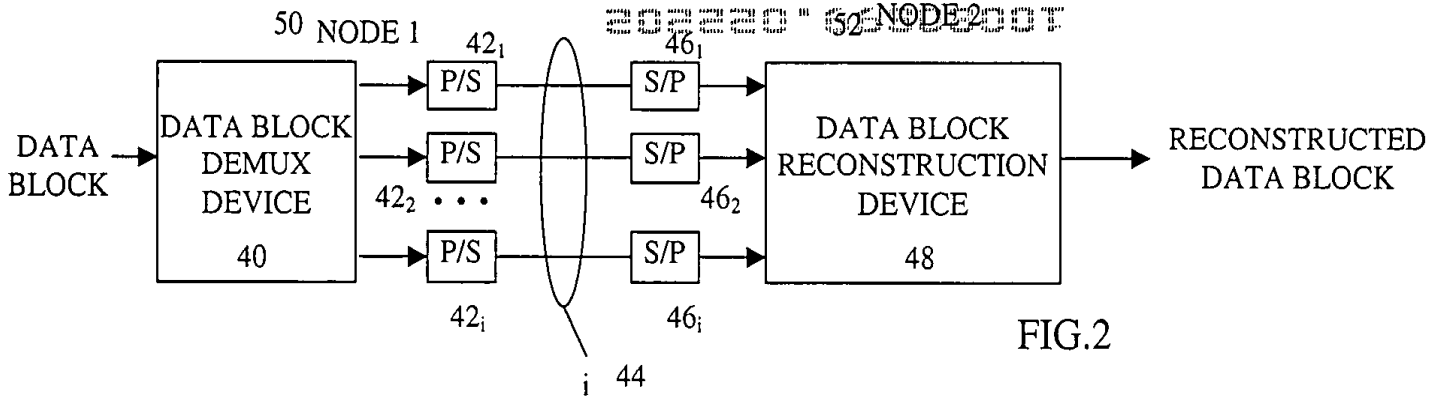

FIG.2

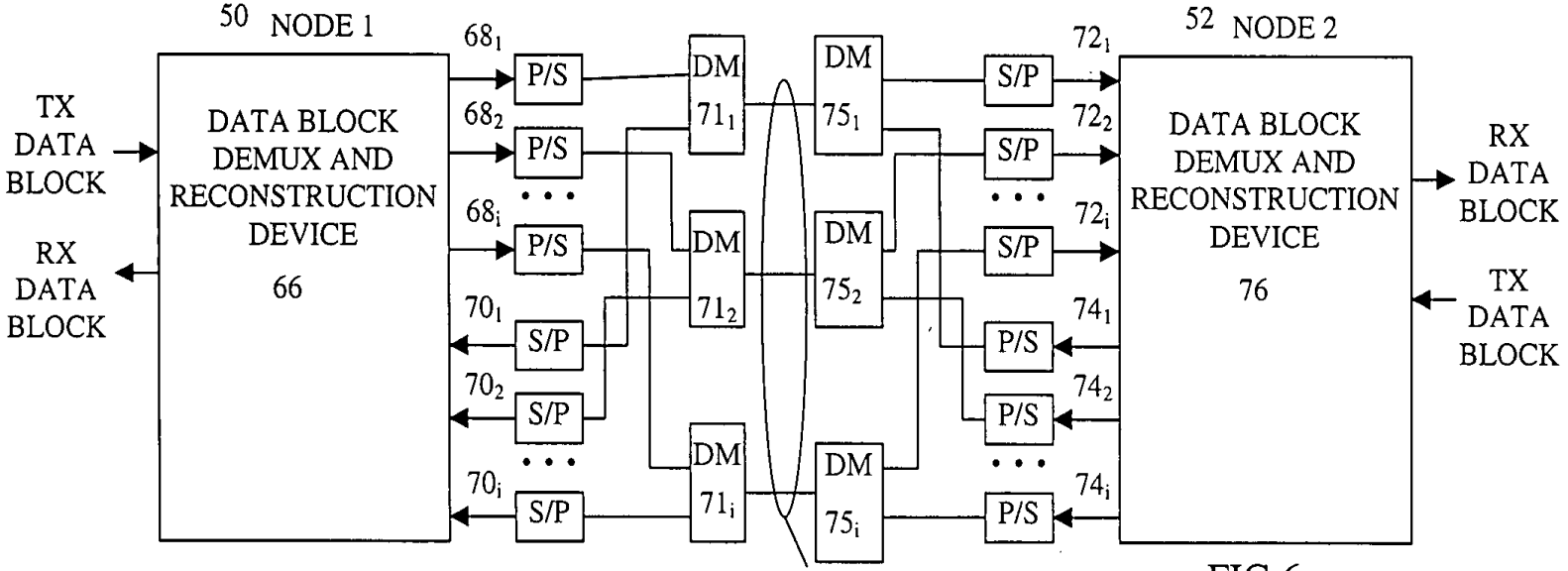

FIG.6

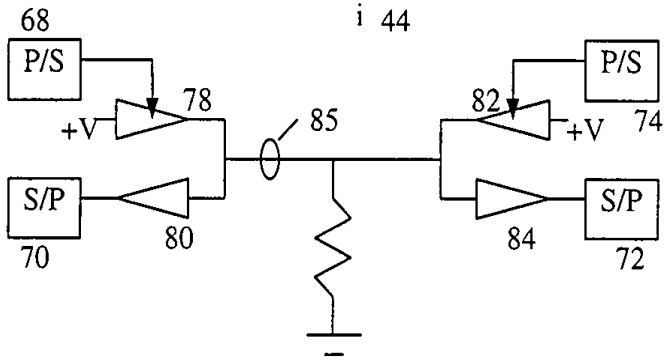

FIG.7

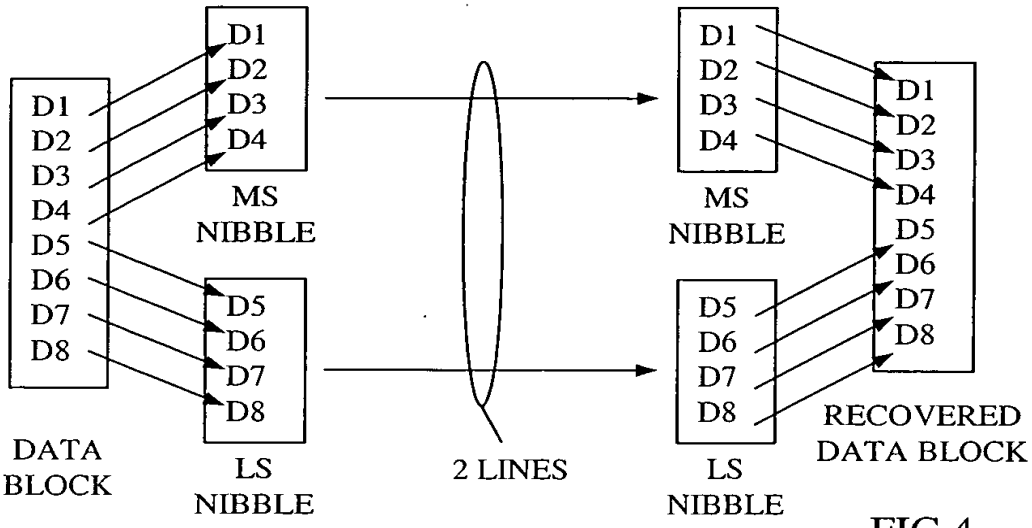
D1
D2
D3
D4
D5
D6
D7
D8
DATA BLOCK
MS NIBBLE
LS NIBBLE
2 LINES
RECOVERED DATA BLOCK

FIG.4

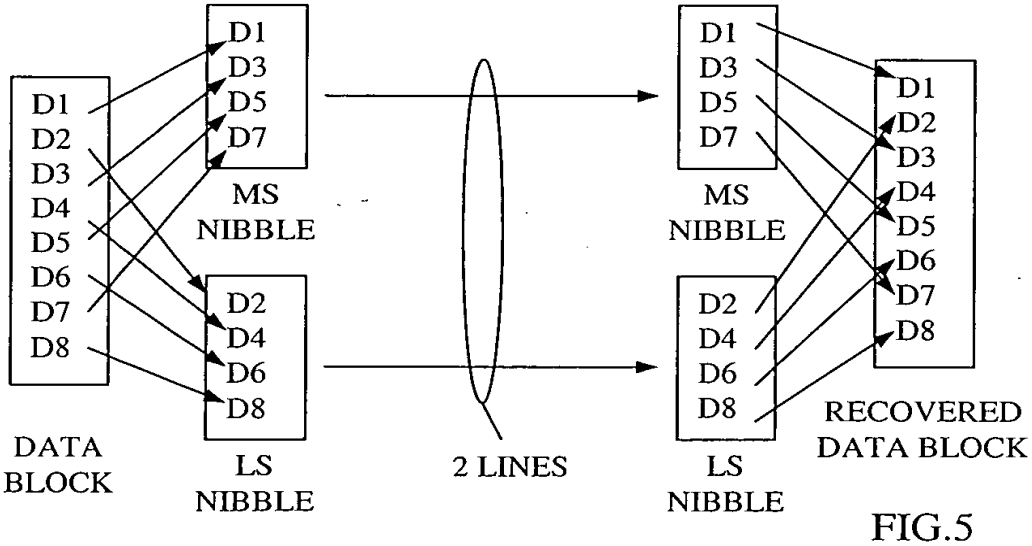
D1
D2
D3
D4
D5
D6
D7
D8
DATA BLOCK
MS NIBBLE
LS NIBBLE
2 LINES
RECOVERED DATA BLOCK

FIG.5

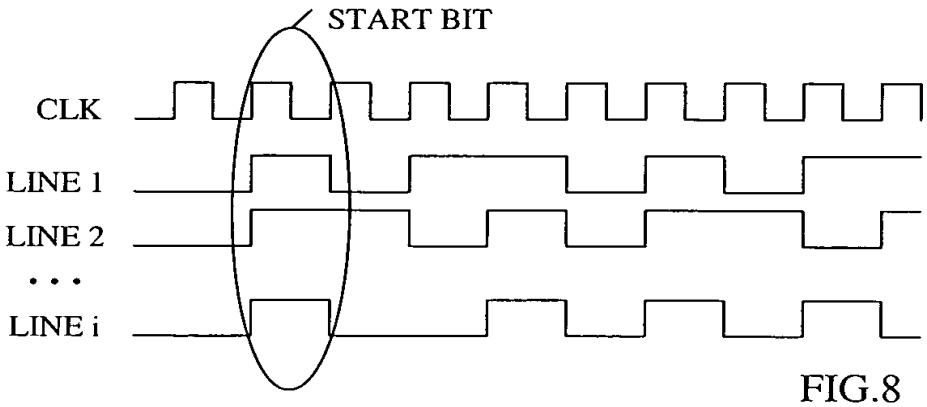

FIG.8

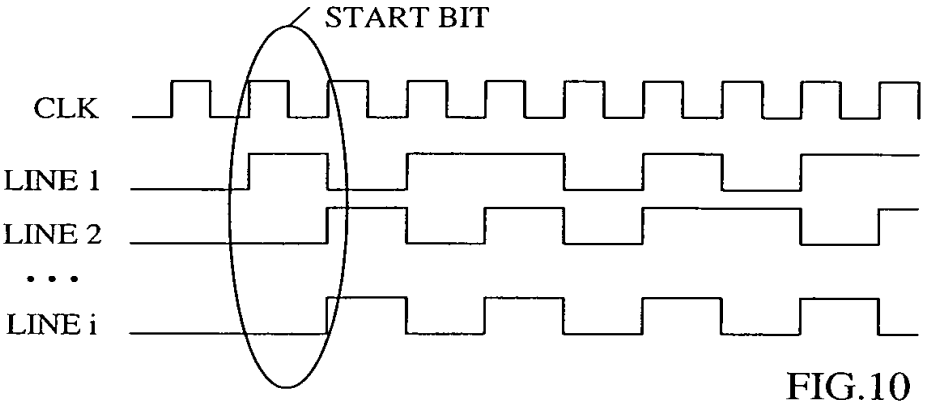

FIG.10

FUNCTION	LINE 1	LINE 2
ABSOLUTE VALUE	1	1
RELATIVE INCREASE	1	0
RELATIVE DECREASE	0	1
NO DATA TRANSFERRED	0	0

FIG.11

FUNCTION	LINE 1	LINE 2
DEVICE 1	1	1
DEVICE 2	1	0
INVALID	0	1
NO DATA TRANSFERRED	0	0

FIG.13

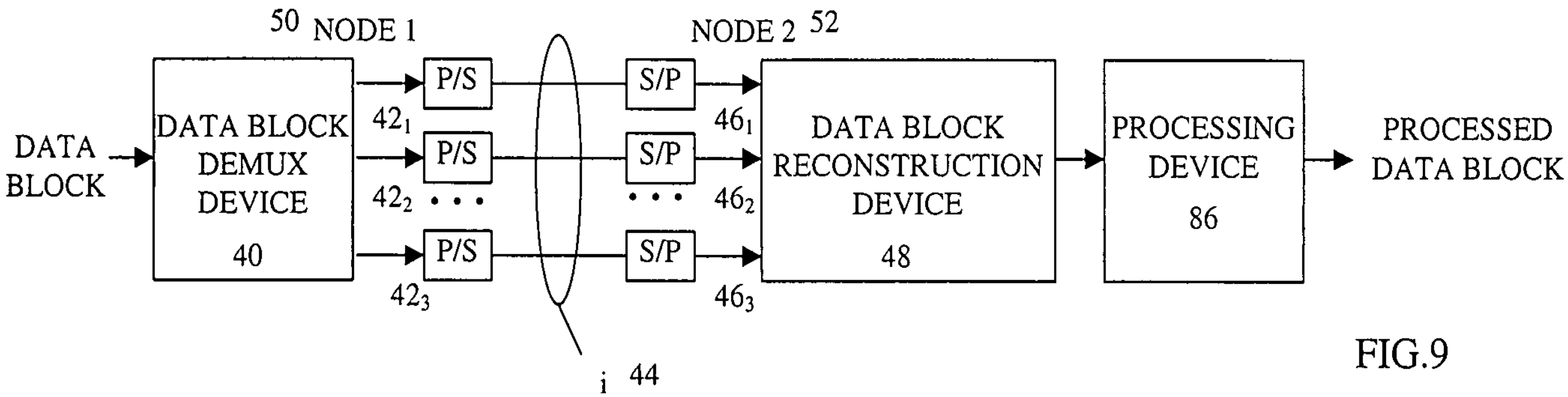

FIG.9

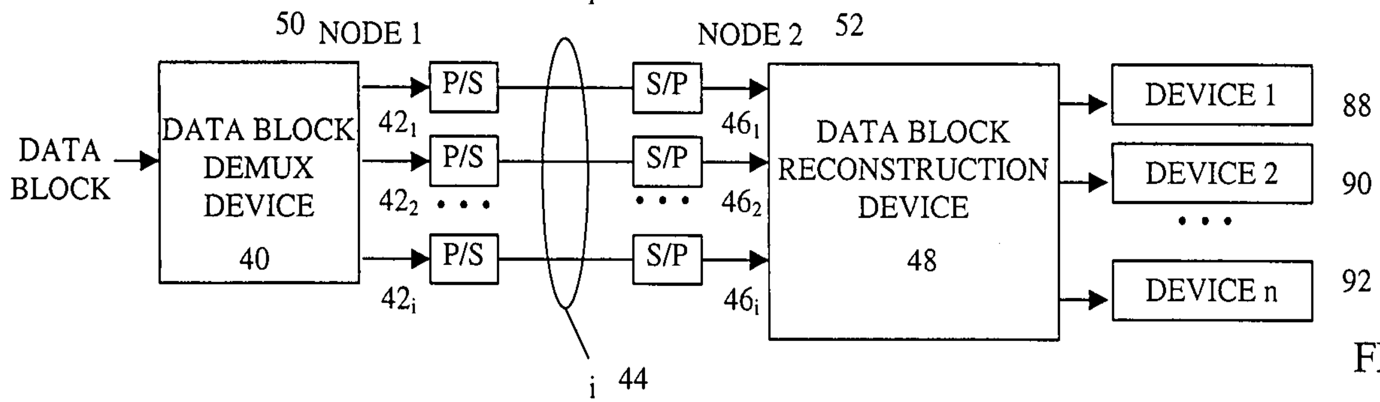

FIG.12

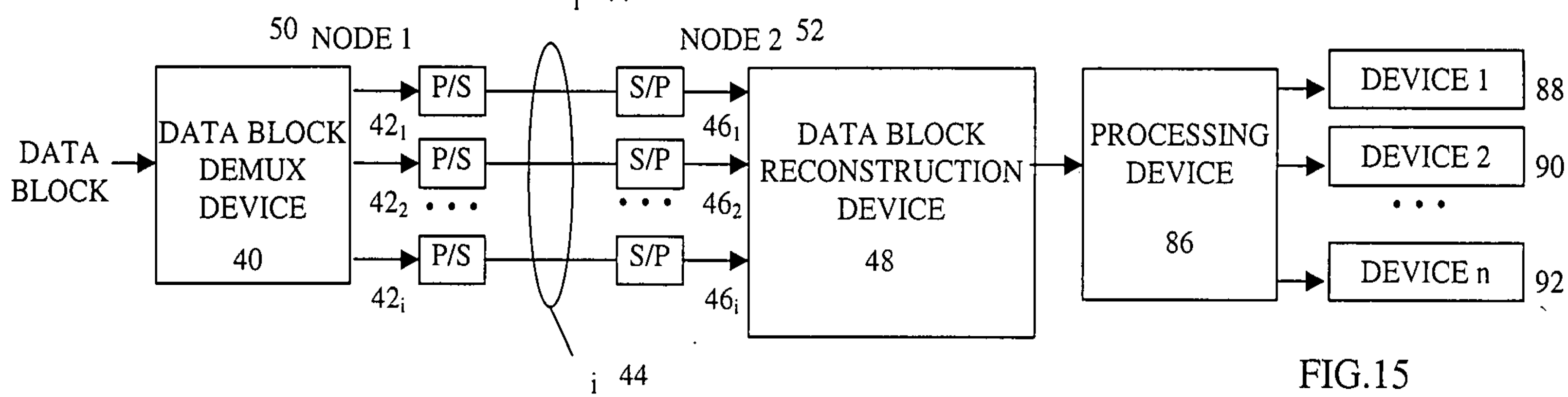

FIG.15

FUNCTION/DEVICE	LINE 1	LINE 2	LINE 3
ABSOLUTE VALUE/DEVICE 2	1	1	1
ABSOLUTE VALUE/DEVICE 1	1	1	0
RELATIVE INCREASE/DEVICE 2	1	0	1
RELATIVE INCREASE/DEVICE 1	1	0	0
RELATIVE DECREASE/DEVICE 2	0	1	1
RELATIVE DECREASE/DEVICE 1	0	1	0
INVALID	0	0	1
NO DATA TRANSFERRED	0	0	0

FIG.14

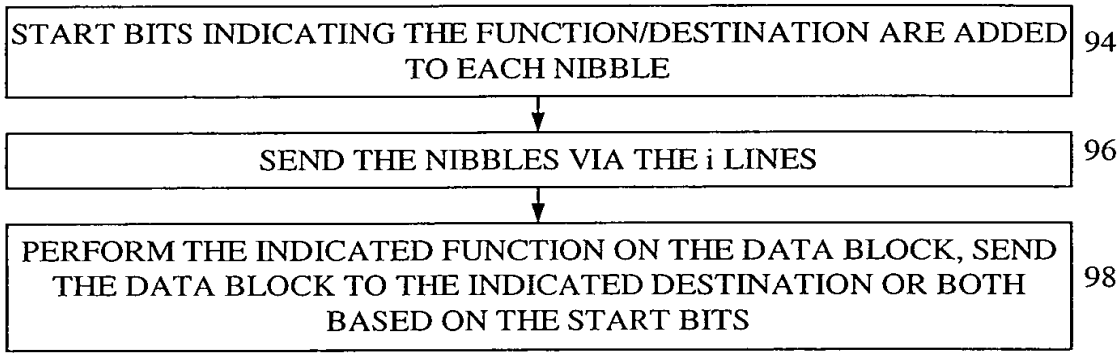

FIG.16

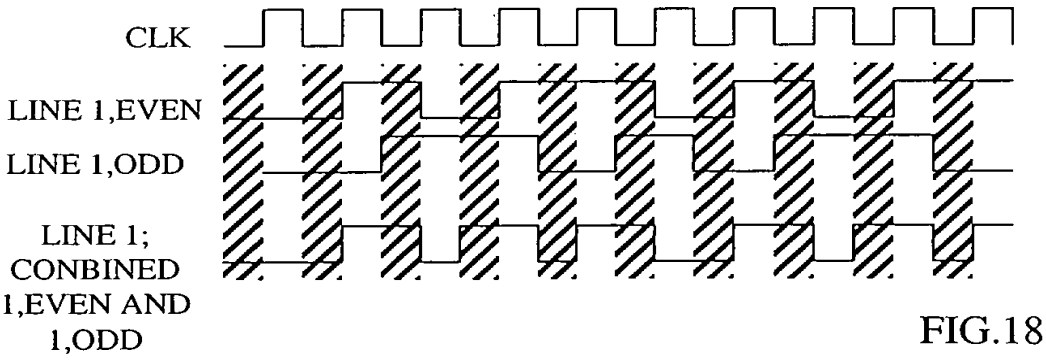

FIG.18

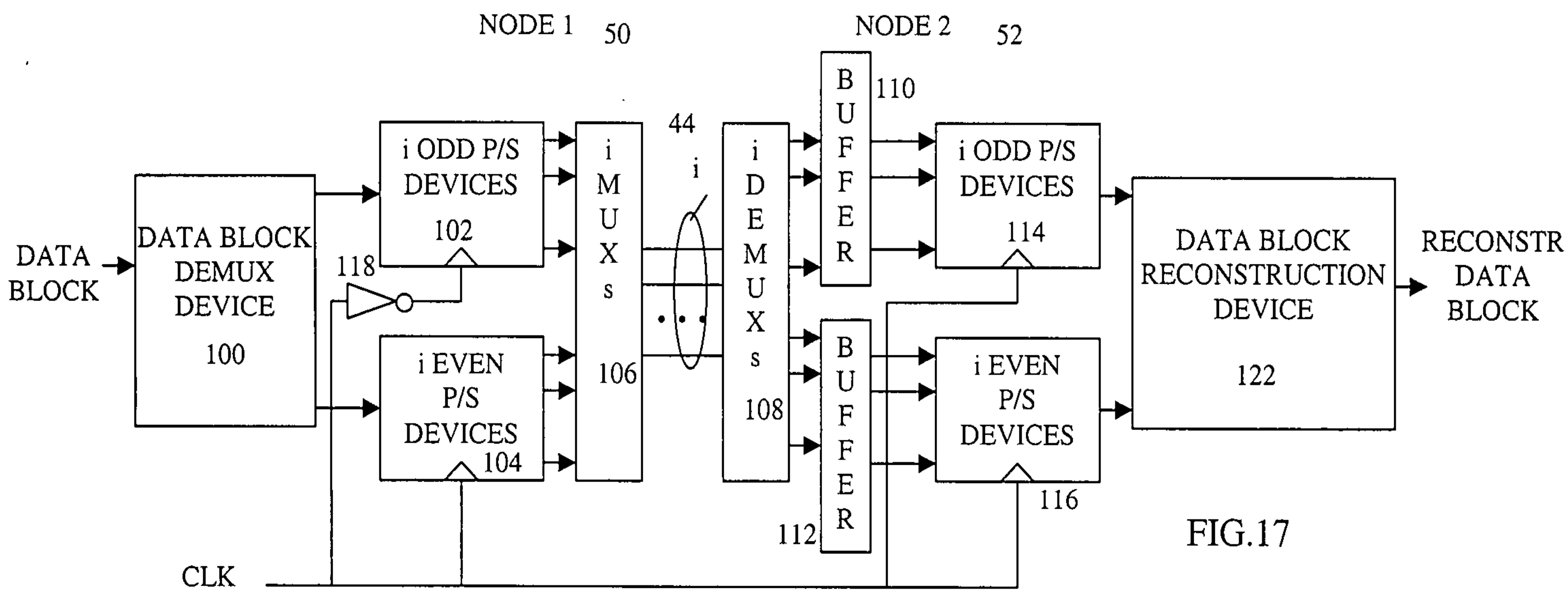

FIG.17

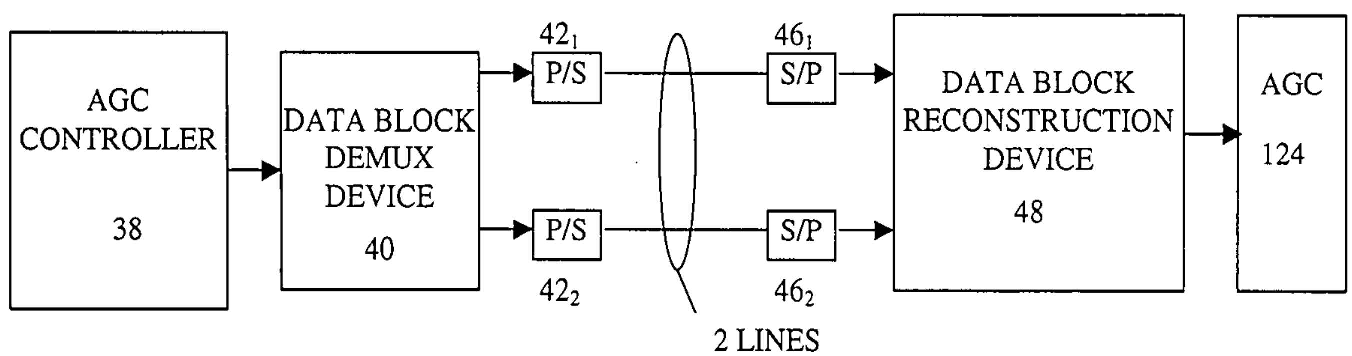

FIG.19

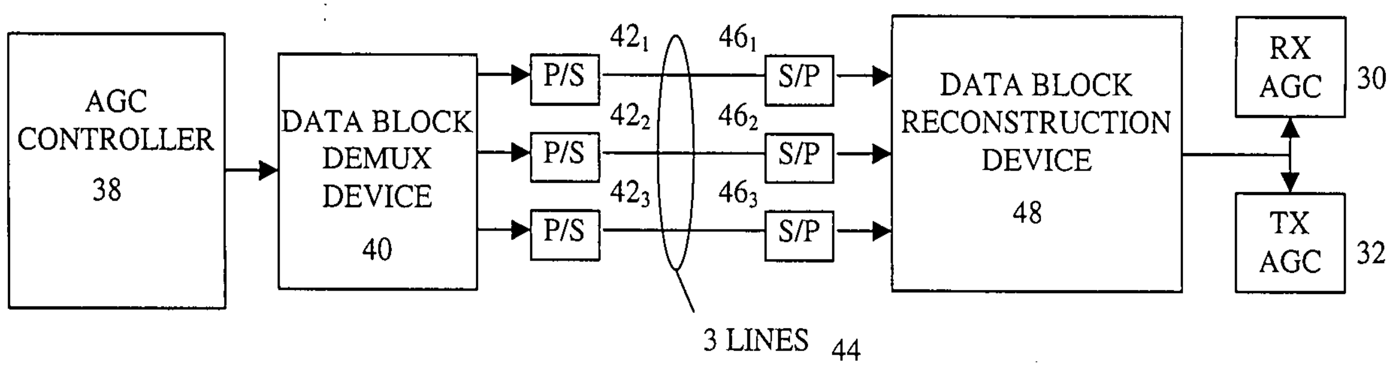

FIG.20